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NAVAL POSTGRADUATE SCHOOL

Monterey, California



DEPARTMENT OF OPERATIONS RESEARCH

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Gilbert T. Howard

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Introduction

This report contains a listing sorted alphabetically by author of all unclassified NPS technical reports written in the period 1969 - 1979 by faculty currently in the Operations Research Department.

The Department of Operations Research was merged in 1971 with the Department of Business and Economics to become the Department of Operations Research and Administrative Science. In 1976 these were split into two departments.

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NAVAL POSTGRADUATE SCHOOL
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DEPARTMENT OF OPERATIONS RESEARCH
TECHNICAL REPORTS

- Andrus, A F
A preliminary study of vulnerability of U. S. naval forces in the Gulf of Tonkin using a manual war game
Naval Postgraduate School, (NPS-55As72051A), 1972. 39 p.
- Andrus, A F
A GPSS model: Submarine detection and trail
Naval Postgraduate School, (NPS-55As75061), 1975. 28 p.
- Andrus, A F; Gaver, D P
The spare parts allocation problem with imperfect information
Naval Postgraduate School, (NPS-55As72041A), 1972. 60 p.
- Arima, J K; Neil, D E
Skill deterioration and its management
Naval Postgraduate School, (NPS-55787), 1978. 70 p.
- Barr, D R
An analysis of adjustment procedures for grenade launchers
Naval Postgraduate School, (NPS-55Bn73041A), 1973. 16 p.
- Barr, D R
Two sequential CEP tests
Naval Postgraduate School, (NPS-55Bn74061), 1974. 15 p.
- Barr, D R
Statistical aspects of the AN/IPQ-27 PSVT design
Naval Postgraduate School, (NPS-55-77-13), 1977. 27 p.
- Barr, D R
Possible approaches to determining lateral and range effects of bomb stations, based on observed impact points
Sponsored by the Naval Electronics Systems Command,
Naval Postgraduate School, (NPS-557810), 1978. 15 p.
- Barr, D R; Burnett, T D
A sequential median test with applications to CEP testing
Naval Postgraduate School, (NPS-55Bn75071), 1975. 61 p.

NAVAL POSTGRADUATE SCHOOL
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DEPARTMENT OF OPERATIONS RESEARCH
TECHNICAL REPORTS

(cont'd)

- Barr, D R; Jayachandran, T; Larson, H J
Some statistical procedures for the joint oil analysis program
Sponsored by the Technical Support Center, Naval Air Rework Facility, Pensacola, Fla. Naval Postgraduate School, (NPS-5578008), 1978. 72 p.
- Barr, D R; Jordan, M F
A power distribution model for weapon accuracy
Naval Postgraduate School, (NPS-55Bn74011), 1974. 31 p.
- Barr, D R; Poock, G K; Richards, R
Experimental designs and analyses for initial ACCAT test bed experimental demonstrations
Naval Postgraduate School, (NPS-557721), 1977. 77 p.
- Barr, D R; Poock, G K; Richards, F R; Miller, H G
Experimentation, research, and operational concepts for the Naval Postgraduate School remote site module
Naval Ocean Systems Center, San Diego, Calif., 1978. 28 p.
- Barr, D R; Poock, G K; Richards, F R
Experimentation manual. Part 1: Experimentation methodology
Naval Postgraduate School, (NPS55-78-032), Nov., 1978. 47 p.
- Barr, D R; Richards, F R
Utility induced subjective probability
Naval Postgraduate School, (NPS-55Bn75011), 1975. 32 p.
- Barr, D R; Richards, F R
Utility assessment methodology, preliminary development phase report
Systems Exploration, Inc., (Technical Rep.), Dec., 1978.
- Barr, D R; Richards, F R
MK 82 bomb ejection sensitivity test report
Sponsored by Naval Electronic Systems Command. Naval Postgraduate School, (NPS55-79-02), Feb., 1979. 20 p.
- Barr, D R; Thomas, M U
Statistical aspects of lumpability hypothesis for Markov chains
Naval Postgraduate School, (NPS-55BnTo73121A), 1973. 12 p.

NAVAL POSTGRADUATE SCHOOL
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DEPARTMENT OF OPERATIONS RESEARCH

TECHNICAL REPORTS

(cont'd)

- Barr, D R; Zehna, P W
Tables of common probability distributions
Naval Postgraduate School, (NPS-55ZeBn0091A), 1970.
31 p.
- Bradley, G H; Brown, G G; Graves, G W
Large scale network algorithms - theory and
implementation
Naval Postgraduate School, (NPS-55Bz75101), 1975.
- Bradley, G H; Hillier, F S
A constructive theory and applications for the solution
of mixed integer systems of linear equations
Oper. Res. Department, Stanford Univ. (TR11), 1973.
25 p.
- Bradley, G H; Howard, G T; Schneidewind, N F; Green, T F;
Montgomery, G
System test methodology, Volume II
Naval Postgraduate School, (NPS-55Ss75072B), 1975.
- Bradley, G H; Howard, G T; Schneidewind, N F; Green, T F;
Montgomery, G
System test methodology, Volume I
Naval Postgraduate School, (NPS-55Ss75072A), 1975.
- Bradley, G H; Schneidewind, N F; Howard, G T; Green, T F
Structure and error detection in computer software
Naval Postgraduate School, (NPS-55Ss75021), 1975. 20
p.
- Bradley, G H; Shubik, M
A note on the shape of the Pareto optimal surface
Yale Univ., (Cowles Foundation Discussion Paper No.
350), 1973. 13 p.
- Brown, G G; Bradley, G; Graves, G
Design and implementation of large scale primal
transshipment algorithms
Naval Postgraduate School, (NPS-55BzBw76091), UCLA
WMSI Rep. 260, Note: presented to 9th Int.
Mathematical Programming Symp., Budapest, Aug., 1976.
- Brown, G G; Geoffrion, A; Bradley, G H
Seasonal production planning with limited shared tooling
at the key operation
UCLA, (WMSI Rep. 299), Oct., 1979. 35 p.

NAVAL POSTGRADUATE SCHOOL
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DEPARTMENT OF OPERATIONS RESEARCH

TECHNICAL REPORTS

(cont'd)

- Brown, G G; Shubert, B
On random binary trees
Naval Postgraduate School, (NPS-55Bw76061), 1976. 45 p.
- Brown, G G; Taylor, J G
A table of Lanchester-Clifford-Schlafi functions
Naval Postgraduate School, (NPS-557739), 1977. 72 p.
- Brown, G G; Taylor, J G
The Liouville-Green approximation to the solution of variable-coefficient Lanchester-type equations of modern warfare
Naval Postgraduate School, (NPS-557744), 1977. 21 p.
- Brown, G G; Taylor, J G
A short table of Lanchester-Clifford-Schlafi functions
Naval Postgraduate School, (NPS-557742), 1977. 58 p.
- Butterworth, R W
Bounds on the availability function
Naval Postgraduate School, (NPS-55Bd71061A), 1971. 20 p.
- Butterworth, R W
A set theoretic treatment of coherent systems
Naval Postgraduate School, (NPS-55Bd71062A), 1971. 21 p.
- Butterworth, R W
A simple policy planning model for determining sea and shore tour lengths
Navy Personnel Res. and Development Center, San Diego, Calif., (TR 74-2), 1973. 11 p.
- Butterworth, R W
On congestion in outpatient walk-in clinics
Naval Postgraduate School, (NPS-55Bd75061), 1975. 47 p.
- Butterworth, R W
Minifast - An interactive model of the Navy's enlisted personnel system
Naval Postgraduate School, (NPS-55Bd76081), 1976. 34 p.
- Butterworth, R W; Marshall, K T
A survey of renewal theory with emphasis on approximations
Naval Postgraduate School, (NPS-55Bd74051), 1974. 59 p.

NAVAL POSTGRADUATE SCHOOL
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DEPARTMENT OF OPERATIONS RESEARCH

TECHNICAL REPORTS

(cont'd)

- Butterworth, R W; Milch, P R
Clustering analysis of enlisted Navy ratings
(Working Paper No. 101), 1974. 14 p.
- Butterworth, R W; Milch, P R
Clustering Navy ratings by loss behavior
Naval Postgraduate School, (NPS-55Bd75062), 1975.
- Dean, S M; Jones, C R; Sovereign, M G
The Naval ship acquisition process as a system
Sponsored by the Office of Naval Res. Naval
Postgraduate School, (NCAR Project 78-1), 1978. 33
p.
- Esary, J D
Proposed modifications to the probability of kill model
established in the JSORs for the ATAAM and AIAAM
missiles (U)
Naval Weapons Center, China Lake, Calif., (Reg.
39052-53), 1978. 30 p.
- Elster, R S; Read, R R; Githens, W H; Musgrave, G L;
Creighton, J W
Design of operational career ladders
Naval Postgraduate School, (NPS-55Ea73061), June,
1978. 91 p.
- Esary, J D
The effect of modeling depth on reliability prediction
for systems subject to a phased mission profile
Naval Postgraduate School, (NPS-557732), 1977. 22 p.
- Esary, J D; Hayne, W J
Properties of an approximate hazard transform
Naval Postgraduate School, (NPS-55Ey73091A) 1973. 22
p.
- Esary, J D; Marshall, A W
Multivariate distributions with exponential minimums
Naval Postgraduate School, (NPS-55Ey70091A) 1970.
- Esary, J D; Marshall, A W
Some classes of distributions closed under the
foundation of coherent systems
Univ. of Wash., (T. R. 59) 1971.
- Esary, J D; Marshall, A W
Families of components, and systems, exposed to a
compound Poisson damage process
Naval Postgraduate School, (NPS-55Ey73071A) 1973. 16
p.

NAVAL POSTGRADUATE SCHOOL
Monterey, California

DEPARTMENT OF OPERATIONS RESEARCH

TECHNICAL REPORTS

(cont'd)

- Esary, J D; Marshall, A W
Multivariate geometric distributions generated by a
cumulative damage process
Naval Postgraduate School, (NPS-55Ey73041A) 1973. 29
p.
- Esary, J D; Marshall, A W; Proschan, F
Shock models and wear processes
Fla. State Univ., Tallahassee, Fla., (FSU Statistics
Rep. M194), 1970.
- Esary, J D; Ziehms, H
Reliability analysis of phased missions
Naval Postgraduate School, (NPS-55Ey75021) 1975. 25
p.
- Forrest, R N
Erosion and discharge waves (U)
(Memo.) 1972.
- Forrest, R N
Memorandum of ASW studies group on ORIC system March
1972
(Memo.) 1972.
- Forrest, R N
ORAD application memorandum (U)
(Memo.) 1972.
- Forrest, R N
Comments on the Sylvania and ITOTS proposals (U)
(Memo.) 1973.
- Forrest, R N
Submarine search models
Naval Postgraduate School, (NPS-55Fo74121) 1974. 32
p.
- Forrest, R N
Some comments on the effectiveness of an optical ranging
and detection system for submarine search
Naval Postgraduate School, (NPS-55Fo74122) 1974. 13
p.
- Forrest, R N
A submarine magnetic anomaly signal model with programs
for a Hewlett-Packard 65 calculator
Naval Postgraduate School, (NPS-55Fo75101) 1975. 37
p.

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TECHNICAL REPORTS

(cont'd)

- Forrest, R N
Some notes on search, detection and localization
modeling
Naval Postgraduate School, (NPS-55Fo75041) 1975. 34
p.
- Forrest, R N
A magnetic anomaly signal model with programs for a
Texas Instruments SR-52 calculator
Naval Postgraduate School, (NPS-55Fo76021), 1976. 62
p.
- Forrest, R N
A procedure for estimating an object's position based on
two or more bearings with a program for a TI-59
calculator
Naval Postgraduate School, (NPS-55-77-34), 1977. 37
p.
- Forrest, R N
Magnetic anomaly detection models
Naval Postgraduate School, (NPS-55-77-19), 1977. 88
p.
- Forrest, R N
A procedure for estimating an object's position based on
two or more bearings with a program for a TI-39
calculator
Naval Postgraduate School, (NPS-557774), 1977.
- Forrest, R N
Spoo identification and submarine localization
Sponsored by Strategic Systems Project Office. Naval
Postgraduate School, (NPS55-78-031), Oct., 1978. 14
p.
- Forrest, R N
Magnetic anomaly detection models with a program for a
TI-59 calculator
Naval Postgraduate School, (NPS-5578021), 1978. 52
p.
- Forrest, R N
An evaluation of a signal processing technique
Naval Postgraduate School, (NPS-557812PR), 1978. 11
p.

NAVAL POSTGRADUATE SCHOOL
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DEPARTMENT OF OPERATIONS RESEARCH
TECHNICAL REPORTS

(cont'd)

- Forrest, R N
A procedure for estimating an object's position based on two or more bearings with a program for a TI-59 calculator
Naval Postgraduate School, (NPS55-77-34 (Revised)), Aug., 1978. 42 p.
- Forrest, R N
A note on the use of positive and negative information to update target location estimates
Naval Postgraduate School, (NPS-5578018), 1978. 13 p.
- Forrest, R N
A discussion of some work done under the NPS - Naval Intelligence Research Project (U)
Sponsored by Naval Intelligence Support Center.
Naval Postgraduate School, (NPS55-79-008PR), Mar., 1979. 6 p.
- Forrest, R N
A submarine spoor detection model
Sponsored by Strategic Systems Project Office. Naval Postgraduate School, (NPS-79-016), Aug., 1979. 27 p.
- Gaver, D P
System service output with application to multiprogramming
Naval Postgraduate School, (NPS-55Gv71091A) 1971. 21 p.
- Gaver, D P
Methods for assessing variability with emphasis on simulation data interpretation
Naval Postgraduate School, (NPS-55Gv72111A) 1972. 33 p.
- Gaver, D P
Doctors on ships?
Naval Postgraduate School, (NPS-55Gv72092A) 1972. 15 p.
- Gaver, D P
Delays at a facility with demand from many distinct sources
Naval Postgraduate School, (NPS-55Gv73081A) 1973. 14 p.

NAVAL POSTGRADUATE SCHOOL
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TECHNICAL REPORTS

(cont'd)

- Gaver, D P
Analytical models for supplementing ship manning
simulations
Naval Postgraduate School, (NPS-55Gv73021A) 1973. 24
p.
- Gaver, D P
DOB budget data analyzed by robust regression techniques
Naval Postgraduate School, (NPS-55Gv75091) 1975. 29
p.
- Gaver, D P
Random record models
Naval Postgraduate School, (NPS-55Gv75102) 1975. 20
p.
- Gaver, D P
The construction and fitting of some simple
probabilistic computer models
Naval Postgraduate School, (NPS-55Gv75011) 1975. 42
p.
- Gaver, D P
Statistical methods of probable use for understanding
remote sensing data
Sponsored by Office of Naval Res. Naval Postgraduate
School, (NPS55-79-020), Oct., 1979. 19 p.
- Gaver, D P; Acar, M
Analytical hazard representation for use in reliability,
mortality, and simulation studies
Naval Postgraduate School, (NPS55-78-017), Aug.,
1978. 48 p.
- Gaver, D P; Andrus, A F
The spare parts allocation problem with imperfect
information, I
Naval Postgraduate School, (NPS-55As72041A) 1972. 60
p.
- Gaver, D P; Humfeld, G
Multitype multiprogramming: Probability models and
numerical procedures
Naval Postgraduate School, (NPS-55Gv75101), 1975. 21
p.
- Gaver, D P; Jacobs, P A
Storage problems when demand is "all or nothing"
Sponsored by the Nat. Sci. Foundation. Naval
Postgraduate School, (NPS55-79-07), Mar., 1979. 34
p.

NAVAL POSTGRADUATE SCHOOL
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DEPARTMENT OF OPERATIONS RESEARCH

TECHNICAL REPORTS

(cont'd)

- Gaver, D P; Lehoczký, J P
Gaussian approximations to service problems: A
communication system example
Naval Postgraduate School, (NPS-55Gv75061), 1975. 30
p.
- Gaver, D P; Lehoczký, J P
Models for work backlogs at computers that time-share
heterogeneous users
Naval Postgraduate School, (NPS-557733), 1977. 38 p.
- Gaver, D P; Lehoczký, J P
Non-stationary infinite server models and their
relatives
Sponsored by the Office of Naval Res. and Nat. Sci.
Foundation. Naval Postgraduate School,
(NPS-5578026), 1978. 20 p.
- Gaver, D P; Lehoczký, J P
Channel blocking in a satellite communication system
model
Naval Postgraduate School, (NPS55-78-025), Oct.,
1973. 37 p.
- Gaver, D P; Lehoczký, J P
Channels that cooperatively service a data stream and
voice messages, I
Naval Postgraduate School, (NPS55-79-027), Nov.,
1979. 46 p.
- Gaver, D P; Lehoczký, J P; Perlas, M
Transitory service systems
Naval Postgraduate School, (NPS-55Gv73051A), 1972.
32 p.
- Gaver, D P; Lewis, P A W
First-order autoregressive and gamma sequences
Sponsored by the Office of Naval Res. and Nat. Sci.
Foundation. Naval Postgraduate School,
(NPS-5578016), 1978. 33 p.
- Gaver, D P; Lewis, P A W
Statistical approaches to managing manpower data bases
Naval Postgraduate School, (NPS-55GvLw74021) 1974.
25 p.
- Gaver, D P; Shedler, G S
Processor utilization in multiprogramming systems via
diffusion approximations
Naval Postgraduate School, (NPS-55Gv72051A) 1972. 52
p.

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TECHNICAL REPORTS

(cont'd)

- Gaver, D P; Shedler, G S
Approximate models for processor utilization in
multiprogrammed computer systems
Naval Postgraduate School, (NPS-55Gv72091A) 1972. 22
p.
- Gaver, D P; Shedler, G S
Sampling from the negative binomial distribution using
Weibull mixture
(IBM Tech. Rep.) 1973.
- Grinold, R C
A steady state longitudinal manpower planning model with
several classes by manpower
Naval Postgraduate School, (NPS55-79-025), Aug.,
1979. 68 p.
- Hartman, J K
Iterative determination of parameters for an exact
penalty function
Naval Postgraduate School, (NPS-55Hh71121A) 1971. 27
p.
- Hartman, J K
Some experiments in global optimization
Naval Postgraduate School, (NPS-55Hh72051A) 1972. 23
p.
- Hartman, J K
Conditions under which a penalty function algorithm is
well defined
Naval Postgraduate School, (NPS-55Hh73101A) 1973. 8
p.
- Hartman, J K
Global solutions to absolute value "linear" programs
Naval Postgraduate School, (NPS-55Hh73111A) 1973.
- Hartman, J K
A new method for global optimization
Naval Postgraduate School, (NPS-55Hh73041A) 1973. 12
p.
- Hartman, J K
Construction workload and resource allocation study:
progress report
(Working Paper) June, 1974. 8 p.

NAVAL POSTGRADUATE SCHOOL
Monterey, California

DEPARTMENT OF OPERATIONS RESEARCH

TECHNICAL REPORTS

(cont'd)

- Hartman, J K
Optimal ship routing
Survey for NROTC Course in Oper. Analysis, July,
1974. 17 p.
- Hartman, J K
Heuristics for global optimization of constrained
nonlinear programs
Naval Postgraduate School, (NPS-55Hh74051) 1974. 15
p.
- Hartman, J K
Epsilon-optimality for a global optimization algorithm
Naval Postgraduate School, (NPS-55Hh75121) 1975. 11
p.
- Hartman, J K
A branch and bound method for nonseparable nonconvex
optimization
Naval Postgraduate School, (NPS-55Hh75102) 1975. 11
p.
- Hartman, J K
Extension of the grid linearization algorithm for convex
optimization to nonconvex nonlinear programs
Naval Postgraduate School, (NPS-55Hh75071) 1975. 22
p.
- Hartman, J K
Preliminary systems specifications for the NTDS computer
facilities scheduling system
May 20, 1977. 29 p.
- Hartman, J K
Parametric terrain and line of sight modelling in the
STAR combat model
Sponsored by U. S. Army Training and Doctrine
Command. Naval Postgraduate School, (NPS-55-79-018),
Aug., 1979. 81 p.
- Hartman, J K
A survey of some models for determining munitions
stockpile requirements for air to ground weapons
Sponsored by the Naval Weapons Center, China Lake,
Calif. Naval Postgraduate School, (NPS-55782), 1978.
42 p.

NAVAL POSTGRADUATE SCHOOL
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DEPARTMENT OF OPERATIONS RESEARCH

TECHNICAL REPORTS

(cont'd)

- Hartman, J K; Howard, G T
NTDS computer facilities scheduling.
Naval Postgraduate School, (NPS-55Hh55Hk76111), 1976.
39 p.
- Hartman, J K; Howard, G T
NTDS computer facilities scheduling system: Final
report
Sponsored by the Fleet Combat Direction Systems
Support Activity, San Diego, Calif. Naval
Postgraduate School, (NPS-557745), 1977. 153 p.
- Hartman, J K; Lasdon, L S
A generalized upper bounding algorithm for
multicommodity network flow problems
Case Western Reserve Univ., Cleveland, Ohio. (Tech.
Memo 193) 1970. 38 p.
- Hartman, J K; Sheppard, F L
Thermoeconomic analysis of vapor power systems
Naval Postgraduate School, (NPS-59Nn75062A) 1975.
106 p.
- Hartman, J K; Womer, N K
Auditing cost-effectiveness analyses of technological
changes
Naval Postgraduate School, (NPS-55Hh73121A) 1973.
102 p.
- Howard, G T
Sensor accuracy mission performance study
Mellonics Systems Develop. Div. of Litton Industries,
1970.
- Howard, G T
Minimizing expected shortages in a multi-item inventory
system
Naval Postgraduate School, (NPS-55Hk71011A) 1971. 38
p.
- Howard, G T
Minimizing the number of penetrations in a boundary
defense problem
Naval Postgraduate School, (NPS-55Hk72041A) 1972. 29
p.
- Howard, G T
An allocation model for attacking defended target
complexes with imperfect attackers
Naval Postgraduate School, (NPS-55Hk73081A) 1973. 26
p.

NAVAL POSTGRADUATE SCHOOL
Monterey, California

DEPARTMENT OF OPERATIONS RESEARCH

TECHNICAL REPORTS

(cont'd)

- Howard, G T
Analysis of a demand access communication system with
priority classes
Naval Postgraduate School, (NPS-55Hk74121) 1974.
- Howard, G T
Allocation of resources to maximize flow capacity in a
mixed series--parallel network
Naval Postgraduate School, (NPS-55Hk74122) 1974.
- Howard, G T
FACPU: A system for computerizing faculty publication
records
Naval Postgraduate School, (NPS55-79-019), Sept.,
1979. 94 p.
- Howard, G T; Balut, S J
N job, one machine scheduling to minimize the number of
late jobs when set-up times are sequence dependent
Naval Postgraduate School, (NPS-55Hk72021A) 1972. 19
p.
- Howard, G T; Balut, S J
Comparison of three rules of thumb to the optimal
solution in investigation theory--with sample problems
Naval Postgraduate School, (NPS-55Hk73011A) 1973. 22
p.
- Howard, G T; Bradley, G H; Schneidewind, N F; Green, T F
Structure and error detection in computer software
Naval Postgraduate School, (NPS-55Ss75021) 1975. 20
p.
- Howard, G T; Bradley, G H; Schneidewind, N F; Green, T F;
Montgomery, G
System test methodology, Vol. II
Naval Postgraduate School, (NPS-55Ss75072B) 1975.
- Howard, G T; Bradley, G H; Schneidewind, N F; Green, T F;
Montgomery, G
System test methodology, Vol. I
Naval Postgraduate School, (NPS-55Ss75072A) 1975.
- Howard, G T
A target selection model
Naval Postgraduate School, (NPS-557830), 1978. 25 p.

NAVAL POSTGRADUATE SCHOOL
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DEPARTMENT OF OPERATIONS RESEARCH

TECHNICAL REPORTS

(cont'd)

- Howard, G T; Schneidewind, N F; Kirchgaessner, M
Software error detection models, validation tests and
program complexity measures
Naval Postgraduate School, (NPS-52Ss76111), 1976.
155 p.
- Huber, R K; Low, L J; Taylor, J G
Some thoughts on developing a theory of combat
Sponsored by Foundation Res. Program and Scientific
Affairs Div. of NATO Res. Grants Programme. Naval
Postgraduate School, (NPS 55-79-014), July, 1979. 54
p.
- Jacobs, P A
Functionals of a vehicular traffic model with dependent
motions
Department of Oper. Res., Stanford Univ., (Technical
Rep. 74-5), 1974.
- Jacobs, P A
The motion of a distinguished particle in an infinite
particle system
Department of Oper. Res., Stanford Univ., (Technical
Rep.), 1974.
- Jacobs, P A
The description of a random field by means of its
conditional distribution
Department of Oper. Res., Stanford Univ., (Technical
Rep. 74-3), 1974.
- Jacobs, P A
A cyclic queueing network with dependent exponential
service times
Naval Postgraduate School, (NPS-557740), 1977. 31 p.
- Jacobs, P A
Heavy traffic results for single server queues with
dependent (EARMMA) service and interarrival times
Sponsored by the Nat. Sci. Foundation. Naval
Postgraduate School, (NPS55-79-009), Apr., 1979. 27
p.
- Jacobs, P A
A model for the defense of a mine field
Naval Postgraduate School, (NPS55-79-032), Dec.,
1979. 16 p.

NAVAL POSTGRADUATE SCHOOL
Monterey, California

DEPARTMENT OF OPERATIONS RESEARCH
TECHNICAL REPORTS

(cont'd)

- Jacobs, P A; Lewis, P A W
Discrete time series generated by mixtures III:
Autoregressive processes (DAR(p))
Naval Postgraduate School, (NPS55-78-022), Sept.,
1978. 45 p.
- Lehoczký, J P; Gaver, D P
Approximate models for central server systems with two
job types
Naval Postgraduate School, (NPS-557725), 1977. 24 p.
- Lehoczký, J P; Gaver, D P
Channels that cooperatively service a data stream and
voice messages, II: Diffusion approximations
Naval Postgraduate School, (NPS55-79-028), Nov.,
1979. 45 p.
- Lewis, P A W
Recent results in the statistical analysis of univariate
point processes
Naval Postgraduate School, (NPS-55Lw71121A), 1971.
90 p.
- Lewis, P A W
Large-scale computer-aided statistical mathematics
Naval Postgraduate School, (NPS-55Lw72111A), 1972.
16 p.
- Lewis, P A W
SASE VI and the statistical analyses of series in events
in computer systems
Naval Postgraduate School, (NPS-55Lw76091), 1976. 21
p.
- Lewis, P A W
Simple models for positive-valued and discrete-valued
time series with ARMA correlation structure
Naval Postgraduate School, (NPS 55-78-033), Nov.,
1978. 42 p.
- Lewis, P A W
The spectrum of intervals for superposed Erland renewal
processes
Naval Postgraduate School, (NPS-55Lw73062A), 1973.
33 p.
- Lewis, P A W; Gaver, D
First order autoregressive Gamma sequences and Point
processes
Sponsored by the Office of the Naval Res. and Nat.
Sci. Foundation. Naval Postgraduate School,
(NPS-5578016), 1978. 33 p.

NAVAL POSTGRADUATE SCHOOL
Monterey, California

DEPARTMENT OF OPERATIONS RESEARCH

TECHNICAL REPORTS

(cont'd)

- Lewis, P A W; Gaver, D P
Statistical approaches to managing manpower data bases
Naval Postgraduate School, (NPS-55GvLw74021), 1974.
25 p.
- Lewis, P A W; Goodman, A S; Robbins, H E
Simultaneous estimation of large numbers of extreme
quantiles in simulation experiments
Naval Postgraduate School, (NPS-55Lw71122A), 1971.
41 p.
- Lewis, P A W; Iglehart, D
Regenerative simulation with internal controls
Sponsored by the Office of Naval Res. Naval
Postgraduate School, (NPS-557805), 1978. 29 p.
- Lewis, P A W; Iglehart, D L
Variance reduction for regenerative simulations, I:
Internal control and stratified sampling for queues.
Control Analysis Corp., Palo Alto, Calif., Tech. Rep.
(86-22), 1976. 30 p.
- Lewis, P A W; Jacobs, P A
A mixed autoregressive-moving average exponential
sequence and point process (EARMA 1,1)
Naval Postgraduate School, (NPS-55Lw75101), 1975. 33
p.
- Lewis, P A W; Jacobs, P A
Discrete time series generated by mixtures I:
Correlational and runs properties
Naval Postgraduate School, (NPS-55-77-1), 1977. 35
p.
- Lewis, P A W; Jacobs, P A
Discrete time series generated by mixtures III:
Autoregressive processes (DAR(p))
Sponsored by the Office of Naval Res. Naval
Postgraduate School, (NPS-5578022), 1978. 29 p.
- Lewis, P A W; Lawrance, A J
A moving average exponential point process (EMA1)
Naval Postgraduate School, (NPS-55Lw75061), 1975. 26
p.
- Lewis, P A W; Lawrance, A J
An exponential autoregressive-moving average process
EARMA(p,q): Definition and correlational properties
Sponsored by the Office of Naval Res. Naval
Postgraduate School, (NPS-557801), 1978. 35 p.

NAVAL POSTGRADUATE SCHOOL
Monterey, California

DEPARTMENT OF OPERATIONS RESEARCH

TECHNICAL REPORTS

(cont'd)

- Lewis, P A W; Lawrence, A J
Properties of the bivariate delayed Poisson process
Naval Postgraduate School, (NPS-55Lw74071), 1974. 25
p.
- Lewis, P A W; Learmonth, G P
Naval Postgraduate School random number generator
package LL random
Naval Postgraduate School, (NPS-55Lw73061A), 1973.
51 p.
- Lewis, P A W; Learmonth, G P
Statistical tests of some widely used and recently
proposed uniform random number generators
Naval Postgraduate School, (NPS-55Lw73111A), 1973. 9
p.
- Lewis, P A W; Robinson, D W
Testing for a monotone trend in a modulated renewal
process
Naval Postgraduate School, (NPS-55Lw73121), 1973. 27
p.
- Lewis, P A W; Robinson, D W
Generating Gamma and Cauchy random variables: an
extension to the Naval Postgraduate School random number
package
Naval Postgraduate School, (NPS-72Ro75041), 1975. 58
p.
- Lewis, P A W; Robinson, D W
Empirical sampling study of goodness of fit statistic
for density function estimation
Naval Postgraduate School, (NPS-55Lw75031), 1975. 26
p.
- Lewis, P A W; Shedler, G S
Statistical analysis of non-stationary series of events
in a data base system.
Naval Postgraduate School, (NPS-55Lw76092), 1976. 51
p.
- Lewis, P A W; Shedler, G S
Analysis and modelling of point processes in computer
systems
Naval Postgraduate School, (NPS-557738), 1977. 41 p.

NAVAL POSTGRADUATE SCHOOL
Monterey, California

DEPARTMENT OF OPERATIONS RESEARCH

TECHNICAL REPORTS

(cont'd)

- Lewis, P A W; Shedler, G S
Simulation of nonhomogeneous Poisson processes by
thinning
Sponsored by the Office of Naval Res. Naval
Postgraduate School, (NPS-5578014), 1978. 23 p.
- Lewis, P A W; Shedler, G S
Simulation methods for Poisson processes in
nonstationary systems
Sponsored by the Office of Naval Res. Naval
Postgraduate School, (NPS-5578019), 1978. 25 p.
- Marshall, K T
An analysis of bolter-hole spacing in aircraft carrier
landings
Naval Postgraduate School, (NPS-5578013), 1978. 50
p.
- Marshall, K T
A comparison of two personnel prediction models
Naval Postgraduate School, (NPS-55Mt71011A), 1971.
43 p.
- Marshall, K T
A manpower and personnel research data base feasibility
study
Naval Postgraduate School, (NPS-55Mt73121), 1973. 33
p.
- Marshall, K T
Manpower and personnel data bases in the Navy and Marine
Corps
Naval Postgraduate School, (NPS-55Mt73021A), 1973.
36 p.
- Marshall, K T
The determination of Navy graduate school quotas
Naval Postgraduate School, (NPS-55Mt75011), 1975. 35
p.
- Marshall, K T
Forecasting the numbers and types of enlisted personnel
in the United States Marine Corps: An interactive
cohort model
Naval Postgraduate School, (NPS-55-77-24), 1977. 31
p.

NAVAL POSTGRADUATE SCHOOL
Monterey, California

DEPARTMENT OF OPERATIONS RESEARCH

TECHNICAL REPORTS

(cont'd)

- Marshall, K T
Department of Operations Research technical report list
1966-1976
Naval Postgraduate School, (NPS-557735), 1977. 16 p.
- Marshall, K T
An interactive model to compute the officer manpower
plan for the United States Marine Corps
Naval Postgraduate School, (NPS-557737), 1977. 42 p.
- Marshall, K T
A classroom demonstration of the length-bias paradox in
renewal theory: First words on printed lines are longer
than average
Naval Postgraduate School, (NPS-557712), 1977. 11 p.
- Marshall, K T
Efficient computation and long range optimization
applications using a two-characteristic Markov-type
manpower flow model
Naval Postgraduate School, (NPS-557723), 1977. 31 p.
- Marshall, K T
Recruit-first term reenlistment trade-off
(Internal OP-01 Rep.), 1979.
- Marshall, K T; Butterworth, R W
A survey of renewal theory with emphasis on
approximations, bounds, and applications
Naval Postgraduate School, (NPS-55Bd74051), 1974. 59
p.
- Marshall, K T; Butterworth, R W
Survey of numerical methods for applications of renewal
processes
Naval Postgraduate School.
- Marshall, K T; Criste, D M
A survey of selected officer retention and
grade-structure studies
Naval Postgraduate School, (NPS-55Mt72071A), 1972.
57 p.
- Marshall, K T; Grinold, R C
Manpower planning models - I: Basic concepts
Naval Postgraduate School, (NPS-55Mt74122), 1974. 27
p.

NAVAL POSTGRADUATE SCHOOL
Monterey, California

DEPARTMENT OF OPERATIONS RESEARCH

TECHNICAL REPORTS

(cont'd)

- Marshall, K T; Grinold, R C
Manpower planning models - III: Longitudinal models
Naval Postgraduate School, (NPS-55Mt75081), 1975. 85
p.
- Marshall, K T; Grinold, R C
Manpower planning models - V: Optimization models
Naval Postgraduate School, (NPS-55Mt75101), 1975. 66
p.
- Marshall, K T; Grinold, R C
Manpower planning models - IV: Synthesis of
cross-sectional and longitudinal models
Naval Postgraduate School, (NPS-55Mt75111), 1975. 43
p.
- Marshall, K T; Grinold, R C
Manpower planning models - II: Cross sectional models
Naval Postgraduate School, (NPS-55Mt75021), 1975.
102 p.
- Marshall, K T; Grinold, R C; Oliver, R M
Longitudinal manpower planning models
Oper. Res. Center, Univ. of Calif., Berkeley, Calif.,
(ORC 73-12), 1973. 30 p.
- Marshall, K T; Hayne, W J
Two-characteristic Markov-type manpower flow models
Naval Postgraduate School, (NPS-55Mt74071), 1974. 44
p.
- Marshall, K T; Oliver, R M
Estimating errors in student enrollment forecasting
Naval Postgraduate School, (NPS55-79-01), Jan., 1979.
26 p.
- Marshall, K T; Oliver, R M; Suslow, S S
Undergraduate enrollment and attendance patterns
Office of the Chancellor, Univ. of Calif., Berkeley,
Calif., Administrative Studies Project in Higher
Education. (Rep. No. 4), 1970. 51 p.
- Marshall, K T; Richards, F R
Analysis of deficits in discrete time resource
allocation problems with correlated supplies and demands
Naval Postgraduate School, (NPS-55MtRh76051), 1976.
18 p.

NAVAL POSTGRADUATE SCHOOL
Monterey, California

DEPARTMENT OF OPERATIONS RESEARCH

TECHNICAL REPORTS

(cont'd)

- Marshall, K T; Wolff, R W
Customer average and time average queue lengths and
waiting times
Oper. Res. Center, Univ. of Calif., Berkeley, Calif.,
(ORC 70-16), 1970.
- Milch, P R
A shutdown queue with two servers and general service
times
Naval Postgraduate School, (NPS-55Mh72041A), 1972.
13 p.
- Milch, P R
A model for the prediction of advancements in the Navy
Enlisted Force.
Naval Postgraduate School, (NPS-55Mh76061), 1976.
141 p.
- Milch, P R
Estimation of parametric length of service distributions
of advances of the Navy Enlisted Force.
Naval Postgraduate School, (NPS-55Mh76121), 1976.
141 p.
- Milch, P R
The establishment of a new method of estimating the
number of advancements in the Navy enlisted force
Naval Postgraduate School, (NPS-55786), 1978. 164 p.
- Milch, P R; Andrus, A F; Brown, D
Alternative measures of effectiveness and methods of
analysis for phase II antitank missile test (ATMT)
BMD Scientific Support Lab., Aug., 1974. 48 p.
- Milch, P R; Butterworth, R W
Clustering analysis of the enlisted Navy ratings
Navy Personnel Res. and Develop. Center, (NPRDC
74-101) 1974. 15 p.
- Milch, P R; Butterworth, R W
Clustering Navy ratings by loss behavior
Naval Postgraduate School, (NPS-55Bd75062), 1975. 32
p.
- Neil, D E
Design parameters and color CRT display design
Naval Postgraduate School, (NPS55-79-05), Feb., 1979.
41 p.

NAVAL POSTGRADUATE SCHOOL
Monterey, California

DEPARTMENT OF OPERATIONS RESEARCH

TECHNICAL REPORTS

(cont'd)

- Neil, D E; Johns, T R
Inter-examiner reliability in the determination of
lateral visual field
U. N. C. Highway Safety Res. Center, Chapel Hill, N.
C., (Tech. Rep.), 1972.
- Neil, D E; Johns, T R
An investigation of the relationship between induced
fatigue and heartrate
U. N. C. Highway Safety Res. Center, Chapel Hill, N.
C., (Tech. Rep.), 1973.
- Neil, D E; Pearson, R G; Barrett, R F
Sonar display design parameters and a conceptual model
of the observer's role in target detection
ONR, Washington, D. C., (Tech. Rep.), 1970.
- Parry, S H
Land combat model-find report
System Res. Group, Ohio State Univ., 1970.
- Parry, S H
Studies of mobility, agility and survivability in the
land combat environment
Naval Postgraduate School, (NPS-55Py75091), 1975.
148 p.
- Parry, S H; Kelleher, E P
Tactical parameters and input requirements for the
ground component of the STAR combat model
Sponsored by U. S. Army Training and Doctrine
Command. Naval Postgraduate School, (NPS55-79-023),
Oct., 1979. 95 p.
- Pilnick, S E
An example of phased mission reliability analysis for a
hypothetical naval weapons system
Naval Postgraduate School, (NPS-557728), 1977. 36 p.
- Poock, G K
Underwater display visibility as influenced by
trubidity, display background color, and the color and
intensity of illumination
Naval Postgraduate School, (NPS-55Pk72071A), 1972.
28 p.
- Poock, G K
Underwater display visibility as influenced by
turbidity, viewing distance, and color of illumination
Naval Postgraduate School, (NPS-55Pk72051A), 1972.
15 p.

NAVAL POSTGRADUATE SCHOOL
Monterey, California

DEPARTMENT OF OPERATIONS RESEARCH

TECHNICAL REPORTS

(cont'd)

- Poock, G K
Human factors and safety problems on Navy oil skimmers
Naval Postgraduate School, (NPS-55Pk75011), 1975. 13
p.
- Poock, G K
Factors involved in the variability of monthly major
aircraft accident rates
Naval Postgraduate School, (NPS-55Pk76071), 1976. 11
p.
- Poock, G K
Trends in major aircraft accident rates
Naval Postgraduate School, (NPS-55Pk76061), 1976. 23
p.
- Poock, G K; Ruckner, E A; Kritz, A C
Underwater display visibility as influenced by turbidity
Nav. Electronics Lab. Center, (TN2386), 1973.
- Poock, G K; Sparks, P W
The Poock-Sparks technique of motion picture Kirlian
photography
(Tech. Rept. 1), 1973.
- Raike, W M
Performance-constrained deterministic and probabilistic
multiperiod inventory problems: Part I
Oper. Res. Group, Monterey, Calif., (Working Paper),
1973.
- Raike, W M; Buckingham, J R; Kelleher, M D
An optimization study of a low thermal potential power
system
Naval Postgraduate School, (NPS-69Kk76091), 1976.
108 p.
- Raike, W M; Charles, A; Stutz, J D
Extensions of some results of Gale and Nikaido
concerning global unicity of solutions to nonlinear
inequalities
Oper. Res. Group, Monterey, Calif., (Working Paper),
1973.
- Raike, W M; Charnes, A; Stutz, J D
V-positivity, poveres and an economic global unicity
theorem of Gale and Nikaido
Center for Cybernetic Studies, Univ. of Texas,
Austin, Tex., (Res. Rep. CS-182), 1974. 8 p.

NAVAL POSTGRADUATE SCHOOL
Monterey, California

DEPARTMENT OF OPERATIONS RESEARCH

TECHNICAL REPORTS

(cont'd)

- Rasmuson, D M; Marshall, N H; Burdick, G R
User's guide for the reliability analysis system (RAS)
EG&G, Idaho, Inc., (Category UC-79p, LMFBR-Safety,
TID-4500-R65) (TREE-1168), Sept., 1977.
- Read, R R
Fire support records project
Naval Postgraduate School (NPS-55Re70111B) 1970. 23
p.
- Read, R R
An analysis of HF bearing data
Naval Postgraduate School, (NPS-55Re75101), 1975.
- Read, R R
Study of the prediction of manpower change behavior
using regression methods
Naval Postgraduate School, (NPS-557726), 1977. 62 p.
- Read, R R
Asymptotic efficiency and some quasi method of moments
estimators
Naval Postgraduate School, (NPS-55777), 1977. 69 p.
- Read, R R
Methodology for efficiency and alteration of the
likelihood system
Naval Postgraduate School, (NPS-55-77-9), 1977.
- Read, R R
Data analysis of the teaching award ballots
Naval Postgraduate School, (NPS55-79-013), July,
1979. 57 p.
- Read, R R; Elster, R S; et al
Statistical analysis of personnel data using factor
scoring cluster analysis and multidimensional scaling
Naval Postgraduate School, (NPS-55Re73061), 1973.
- Read, R R; Elster, R S; Githens, W H
Design of operational career ladders
Naval Postgraduate School, (NPS-55Ea73061), 1973. 91
p.
- Read, R R; Zweig, H J
On the quantification of teacher performance using
student opinion
Naval Postgraduate School, (NPS-55ReZw72031A) 1972.
57 p.

NAVAL POSTGRADUATE SCHOOL
Monterey, California

DEPARTMENT OF OPERATIONS RESEARCH

TECHNICAL REPORTS

(cont'd)

- Richards, F R
A stochastic model of a repairable item inventory system
Naval Postgraduate School, (NPS-55Rh72121A), 1972.
32 p.
- Richards, F R
Validations tests for ships supply support study
Naval Postgraduate School, (NPS-55Rh72111A), 1972.
23 p.
- Richards, F R
A study of independence between supply echelons
Naval Postgraduate School, (NPS-55Rh73021A), 1973.
34 p.
- Richards, F R
Computer software: Testing, reliability models, and
quality assurance
Naval Postgraduate School, (NPS-55Rh74071A), 1974.
80 p.
- Richards, F R
A user's guide to the OA 3660 APL workspace
Naval Postgraduate School, (NPS-5578028), 1978. 113
p.
- Richards, F R; Atkinson, L R
Analytical models for SERVMART inventory control
Naval Postgraduate School, (NPS-55Rh73061A), 1973.
43 p.
- Richards, F R; Barr, D R
Utility induced subjective probability
Naval Postgraduate School, (NPS-55Bn75011), 1975. 32
p.
- Richards, F R; Barr, D R
Utility assessment methodology, preliminary development
phase report
Systems Exploration, Inc., (Technical Rep.), Dec.,
1978.
- Richards, F R; Barr, D R
MK 82 bomb ejection sensitivity test report
Sponsored by Naval Electronics Systems Eng. Center.
Naval Postgraduate School, (NPS55-79-02), Feb., 1979.
20 p.

NAVAL POSTGRADUATE SCHOOL
Monterey, California

DEPARTMENT OF OPERATIONS RESEARCH

TECHNICAL REPORTS

(cont'd)

- Richards, F R; Marshall, K T
Analysis of deficits in discrete time resource
allocation problems with correlated supplies and demands
Naval Postgraduate School, (NPS-55Mtrh76051), 1976. 18 p.
- Richards, F R; Thomas, M U
On choosing a family of probability distributions
Naval Postgraduate School, (NPS-55Rh74021), 1974. 22 p.
- Richards, F R; Woodall, S R
User's guide to the time series editor
Naval Postgraduate School, (NPS-5578035), 1978. 32 p.
- Richards, F R; Woodall, S R
An interactive software package for time series analysis
Naval Postgraduate School, (NPS-5578034), 1978. 171 p.
- Shubert, B O
Sequential optimization of multimodal discrete function
with bounded rate of change
Naval Postgraduate School, (NPS-55Sy70101A), 1970.
- Shubert, B O
Games of prediction of periodic sequences
Naval Postgraduate School, (NPS-55Sy71081A), 1971. 40 p.
- Shubert, B O
Evaluation of certain probabilities associated with a
class of Markov chains
Naval Postgraduate School, (NPS-55Sy73111A), 1973. 34 p.
- Shubert, B O
On the Omega-value of a matrix
Naval Postgraduate School, (NPS-55Sy74021), 1974. 24 p.
- Shubert, B O
Some remarks on the finite-memory K-hypotheses problems
Naval Postgraduate School, (NPS-55Sy74101), 1974. 23 p.

NAVAL POSTGRADUATE SCHOOL
Monterey, California

DEPARTMENT OF OPERATIONS RESEARCH
TECHNICAL REPORTS

(cont'd)

- Shubert, B O
Modeling a random search
Naval Postgraduate School, (NPS-55Sy75071), 1975. 25
p.
- Shubert, B O; Brown, G G
On random binary trees
Naval Postgraduate School, (NPS-55Bw76061), 1976. 45
p.
- Shubert, B O; Washburn, A R
The Omega-value of a two-by-two matrix differential game
Naval Postgraduate School, (NPS-SyWs73101A), 1973.
26 p.
- Shubert, B O; Washburn, A R
Equilibrium equations and a computation method for
matrix differential games (MDG)
Naval Postgraduate School, (NPS-55Ws74061), 1974. 25
p.
- Shudde, R H
LPI--an interactive linear programming package
Naval Postgraduate School, (NPS-55Su74101), 1974. 42
p.
- Shudde, R H
Surface duct propagation loss - HP-97 plot version
NAVTACSUPPACT Fleet Mission Program Library, (Doc.
U10015), 1976.
- Shudde, R H
Nonsymmetric ballistic range, height, time-of-flight and
optimal flight path angle computations with programs for
a Hewlett-Packard 65 calculator
Naval Postgraduate School, (NPS-55Su76031), 1976. 17
p.
- Shudde, R H
FBM Effectiveness project - results of 2 research
quarters
Naval Postgraduate School letter rep., (NC4(55Su)/pc,
3900. Ser: S120), 1976.
- Shudde, R H
Bearing, speed and course given range and Doppler data
from two sonobuoys
NAVTACSUPPACT Fleet Mission Program Library, (Doc.
U10020), 1976.

NAVAL POSTGRADUATE SCHOOL
Monterey, California

DEPARTMENT OF OPERATIONS RESEARCH

TECHNICAL REPORTS

(cont'd)

- Shudde, R H
Speed and course given range-only data from two
sonobuoys of two or more times
NAVTACSUPPACT Fleet Mission Program Library, (Doc.
U10021), 1976.
- Shudde, R H
HYLOP - Hyperbolic lines-of-position with two sonobuoys
NAVTACSUPPACT Fleet Mission Program Library, (Doc.
C10019), 1976.
- Shudde, R H
DACTIVE - Least squares tracking with time, bearing, and
range
NAVTACSUPPACT Fleet Mission Program Library, (Doc.
U10017), 1976.
- Shudde, R H
DIFAR - Bearings only tracking with least squares
NAVTACSUPPACT Fleet Mission Program Library, (Doc.
U10016), 1976.
- Shudde, R H
HYFIX - Hyperbolic fixing with three sonobuoys
NAVTACSUPPACT Fleet Mission Program Library, (Doc.
C10018), 1976.
- Shudde, R H
Estimation of a contact's course, speed and position
based on bearings-only information from two moving
sensors with a program for an HP-67/97 calculator
Naval Postgraduate School, (NPS-557743), 1977. 16 p.
- Shudde, R H
On-station update of oceanographic information with
programs for the HP-67 calculator
Naval Postgraduate School, (NPS-557741), 1977. 13 p.
- Shudde, R H
Tactical analysis on the personal programmable
calculator--six algorithms
Naval Postgraduate School, (NPS-55-77-31), 1977. 89
p.
- Shudde, R H
An analysis of the Lloyd mirror phenomena under constant
velocity gradient conditions with programs for the
HP-67/97 calculator
Naval Postgraduate School, (NPS-557736), 1977. 120
p.

NAVAL POSTGRADUATE SCHOOL
Monterey, California

DEPARTMENT OF OPERATIONS RESEARCH

TECHNICAL REPORTS

(cont'd)

- Shudde, R H
Tactical analysis on the personal programmable
calculator - six algorithms (rev. ed.)
Naval Postgraduate School, (NPS-557731), 1978.
- Shudde, R H
An AN/SSQ-50/50A and AN/SSQ-62 environmental range
prediction model for the Hewlett-Packard HP-67/97
programmable calculator
Sponsored by Office of Naval Research. Naval
Postgraduate School, (NPS55-78-027), Oct., 1978.
- Shudde, R H
Tracking and environmental algorithms for the
Hewlett-Packard HP-67 calculator
Naval Postgraduate School, (NPS-55789), 1978. 59 p.
- Shudde, R H
Naval applications: Ten algorithms for the
Hewlett-Packard HP-67 and HP-97 calculators
Naval Postgraduate School, (NPS55-79-04), Feb., 1979.
169 p.
- Shudde, R H
Naval applications: Three algorithms for the
Hewlett-Packard HP-67 and HP-97 calculators (U)
Naval Postgraduate School, (NPS55-79-011), May, 1979.
- Shudde, R H; Barr, D R
An analysis of earthquake frequency data
Naval Postgraduate School, (NPS-55Su76121), 1976. 11
p.
- Shudde, R H; Zeleny, W B
The MIRV sequencing problem - an analytical approach
(NPS-55Su/61Z10061B), 1970.
- Sovereign, M G; Jones, C R
Escalation provisions for Navy contracts, issues and
choices
Naval Postgraduate School, (NPS-55Zo75051), 1975. 59
p.
- Taylor, J G
Application of differential games to problems of
military conflict: Tactical allocation problems - Part
I
Naval Postgraduate School, (NPS-55Tw70062A), 1970.
197 p.

NAVAL POSTGRADUATE SCHOOL
Monterey, California

DEPARTMENT OF OPERATIONS RESEARCH
TECHNICAL REPORTS

(cont'd)

- Taylor, J G
Application of differential games to problems of naval warfare: Surveillance - evasion - Part I
Naval Postgraduate School, (NPS-55Tw70061A), 1970. 126 p.
- Taylor, J G
Application of differential games to problems of military conflict: Tactical allocation problems - Part II
Naval Postgraduate School, (NPS-55Tw72111A), 1972. 77 p.
- Taylor, J G
Appendices C and D of Application of differential games to problems of military conflict: Tactical allocation problems - Part II
Naval Postgraduate School, (NPS-55Tw74112), 1974. 27 p. and 71 p.
- Taylor, J G
Application of differential games to problems of military conflict: Tactical allocation problems - Part III. Final report for period Sept., 1973 - May, 1974
Naval Postgraduate School, (NPS-55Tw74051), 1974. v. p.
- Taylor, J G
Survey on the optimal control of Lanchester-type attrition processes. Partial report for period Sept. 1973-Dec. 1973
Naval Postgraduate School, (NPS-55Tw74031), 1974. 36 p.
- Taylor, J G
Optimal fire-support strategies
Naval Postgraduate School, (NPS-55Tw76021), 1976. 146 p.
- Taylor, J G
Differential-game examination of optimal time-sequential fire-support strategies
Naval Postgraduate School, (NPS-55Tw76091), 1976. 53 p.
- Taylor, J G
Error bounds for the Liouville-Green approximation to initial-value problems
Naval Postgraduate School, (NPS55-77-29), 1977.

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- Taylor, J G
Fire distribution in Lanchester inertial combat, I:
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- Taylor, J G
On Liouville's normal form for Lanchester-type equations
of modern warfare with variable coefficients
Sponsored by the Office of Naval Res. and Foundation
Res. Program. Naval Postgraduate School,
(NPS-5578024), 1978. 28 p.
- Taylor, J G; Brown, G G
A mathematical theory for variable-coefficient
Lanchester-type equations of "modern warfare"
Naval Postgraduate School, (NPS-55Tw74111), 1974. 44
p.
- Taylor, J G; Brown, G G
An examination of the effects of the criterion
functional on optimal fire-support policies.
Naval Postgraduate School, (NPS-55Tw55Bn76092), 1976.
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A short table of Lanchester-Clifford-Schlaflf functions
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1977. 63 p.
- Taylor, J G; Brown, G G
A table of Lanchester-Clifford-Schlaflf functions
Sponsored by the U. S. Army Res. Office and Office of
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1977. 90 p.
- Taylor, J G; Comstock, C
Force-annihilation conditions for variable-coefficient
Lanchester-type equations of modern warfare, I:
Mathematical theory
Naval Postgraduate School, (NPS-55Tw76081), 1976. 35
p.
- Taylor, J G; Brown, G G
Further canonical methods in the selection of
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- Thomas, M U; Brill, E A
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Naval Postgraduate School, (NPS-55Zg55To74011), 1974. 28 p.
- Thomas, M U; Hartman, J K; Richards, F R
Construction workload and resource allocation study: Progress report
Naval Postgraduate School, (WR-4-2189), 1974. 8 p.
- Thomas, M U; Parry, S H
An evaluation of the manufacturing operations at the Rock Island arsenal
Battelle Columbus Labs., (Task Order 76-0069), 1976.
- Thomas, M U; Rantschler, R D
A mathematical formulation for selecting holding-tank-processor requirements for shipboard sewage treatment
Naval Postgraduate School, (NPS-55To72071A), 1972. 26 p.
- Thomas, M U; Richards, F R
Construction workload planning: A final report
Naval Postgraduate School, (NPS-55Rh761201), 1976.
- Thomas, M U; Russell, R F
On choosing a family of probability distributions
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- Tysver, J B
Allocation of imperfect weapons for attack and defense
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Naval Postgraduate School, (NPS-55Ty74031), 1974. 61
p.
- Tysver, J B
Submarine and missile requirements as a function of the
number of missiles per submarine and submarine
neutralization probability
Naval Postgraduate School, (NPS-55Ty75071), 1975. 29
p.
- Tysver, J B
Use of sequential differences in smoothing 3-D data
Sponsored by Naval Undersea Warfare Eng. Station,
Keyport, Wash. Naval Postgraduate School,
(NPS55-79-012PR), May, 1979. 102 p.
- Waldeisen, L E; Gifford, E C
H-2/SR helicopter pilot and ATO crew station human
factors engineering specification
U. S. Nav. Air Develop. Center, (NADC SPEC 5013-006),
1974. 136 p.
- Washburn, A R
An introduction to evasion games
Naval Postgraduate School, (NPS-55Ws71091A), 1971.
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- Washburn, A R
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- Washburn, A R
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- Washburn, A R
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- Washburn, A R
Simulation of Kalman filter used for short baseline
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Search for a moving target: Upper bound on detection
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1978. 14 p.
- Washburn, A R
Introduction to Blotto games
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Results of playing an evasion game
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- Washburn, A R
Hide and seek from a fixed base
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- Washburn, A R; Shubert, B O
The Omega-value of a two-by-two matrix-differential game
Naval Postgraduate School, (NPS-55SyWs73101A), 1973.
26 p.
- Washburn, A R; Shubert, B O
Equilibrium equations and a computation method for
matrix differential games (MDG)
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p.

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(cont'd)

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A decentralized algorithm for finding the shortest paths
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- Yen, J Y
Distributed shortest path algorithms for computer
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1979. 36 p.
- Zehna, P W
Some alternatives to exponential smoothing in demand
forecasting
Naval Postgraduate School, (NPS-55Ze72061A), 1972.
38 p.
- Zehna, P W
Solutions in Hadley-Whitin Q-r models
Sponsored by the Office of Naval Res. Naval
Postgraduate School, (NPS-55784), 1978. 19 p.
- Zehna, P W; Barr, D R
Tables of common probability distributions
Naval Postgraduate School, (NPS-55ZeBn0091A), 1970.
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